

E-Maturity Models & Self-assessment frameworks

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Devices households use to access the Internet

December 2006 and 2009 quarters

Area	Total households with Internet		Device							
			Desktop computer		Internet-enabled mobile phone		Laptop or handheld computer		Games machine or other	
	2006	2009	2006	2009	2006	2009	2006	2009	2006 R	2009
	(000)		Percent ⁽¹⁾							
All rural areas										
Rural centre ⁽²⁾	30	85	98	76	6	7	9	45	5	2
Rural ⁽³⁾	113	87	95	71	3	5	8	48	1	1

Source Statistics New Zealand

http://www.stats.govt.nz/browse_for_stats/industry_sectors/information_technology_and_communications/hhold-use-of-ict/household-ict-2009-tables.aspx

Mobile access to the Internet for personal use

December 2006 and 2009 quarters

	Recent Internet users ⁽¹⁾		Total mobile access ⁽²⁾		Using cellular ⁽³⁾		Using wireless ⁽⁴⁾	
	2006	2009	2006	2009	2006	2009	2006	2009
	(000)		Percent ⁽⁵⁾					
Sex								
Male	1 070	1 208	16	29	12		7	17
Female	1 150	1 254	12	22	11		5	12
Age group (years)								
15–19	264	298	19	35	16	25	5	17
20–24	238	282	20	40	13	27	9	24
25–29	212	257	20	34	17	25	7	18
30–34	226	243	16	31	13	24	6	17
35–39	233	269	17	25	13	19	7	14
40–44	243	268	13	24	10	18	5	14
45–49	220	265	11	19	8	14	6	12
50–54	179	230	8	19	6	11	4	13
55–59	152	189	9	18	6	10	5	12
60+	241	376	5	9	3	4	3	6

Source Statistics New Zealand

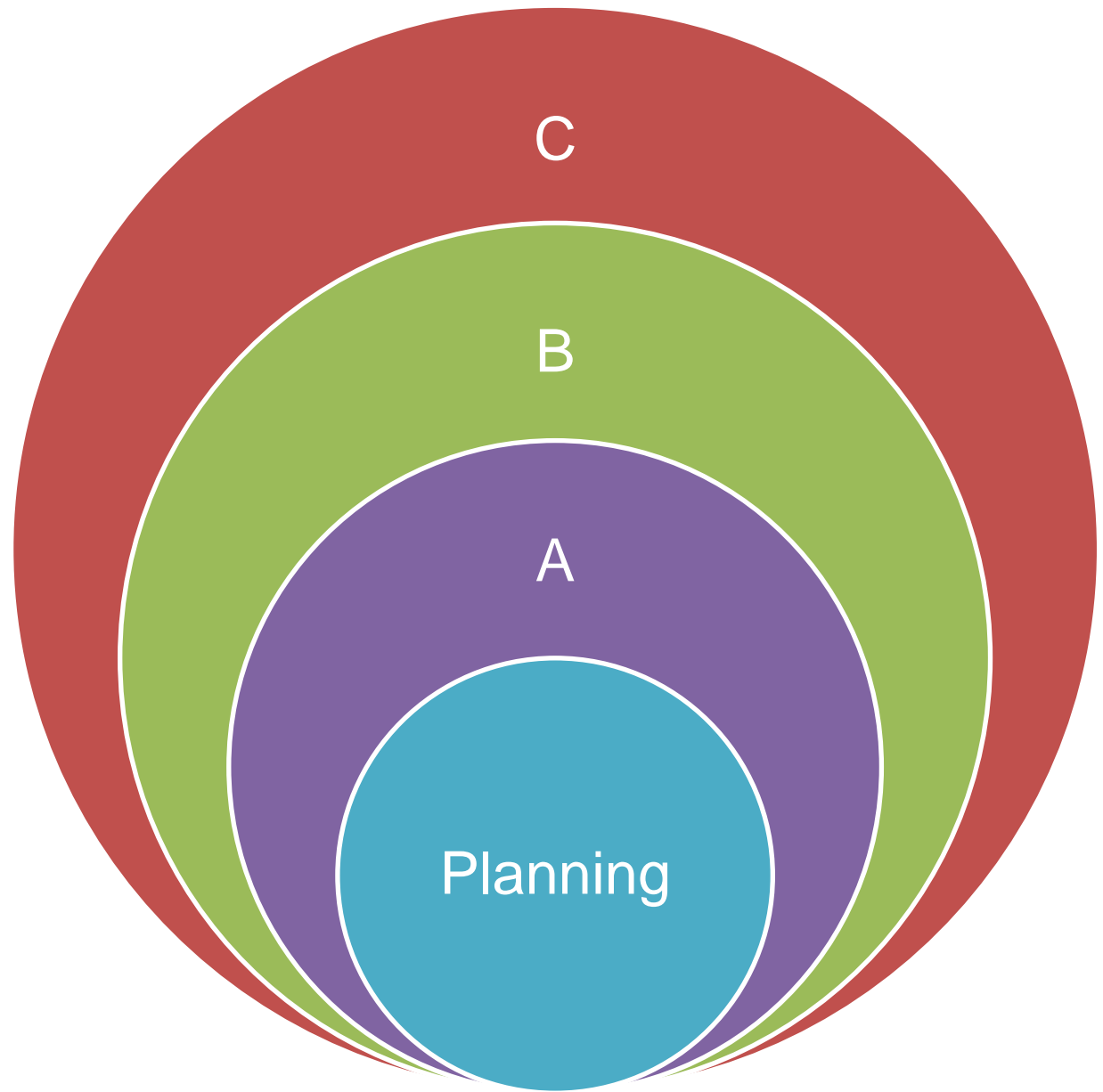
http://www.stats.govt.nz/browse_for_stats/industry_sectors/information_technology_and_communications/hhold-use-of-ict/household-ict-2009-tables.aspx



I HAVE A DREAM ...

Maturity

- *Effective*: impact on learning/ training/ behaviors in the manner they were designed to do,
- *Efficient*: are cost effective in terms of “return of investment” on the resources consumed (i.e. time spent individuals engaging with the activity and time spent developing the activity)
- *Replicable*: others (institutions/individuals) can duplicate events and obtain the similar results



The 3 As

- **Awareness:** Leadership reflects upon existing capacity, capability and use of Mobile Devices.
- **Action:** Policies and plans are generated to increase access, capacity and capability at a systemic level.
- **Accomplishment:** The impact of implementations are evaluated for effectiveness.





Accomplishment

Measure

Action

Plan

Awareness

What is m-Learning?

Mobile
Delivery



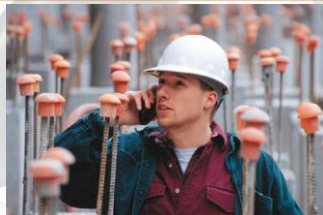
Mobile
Supported



Mobile
Enhanced

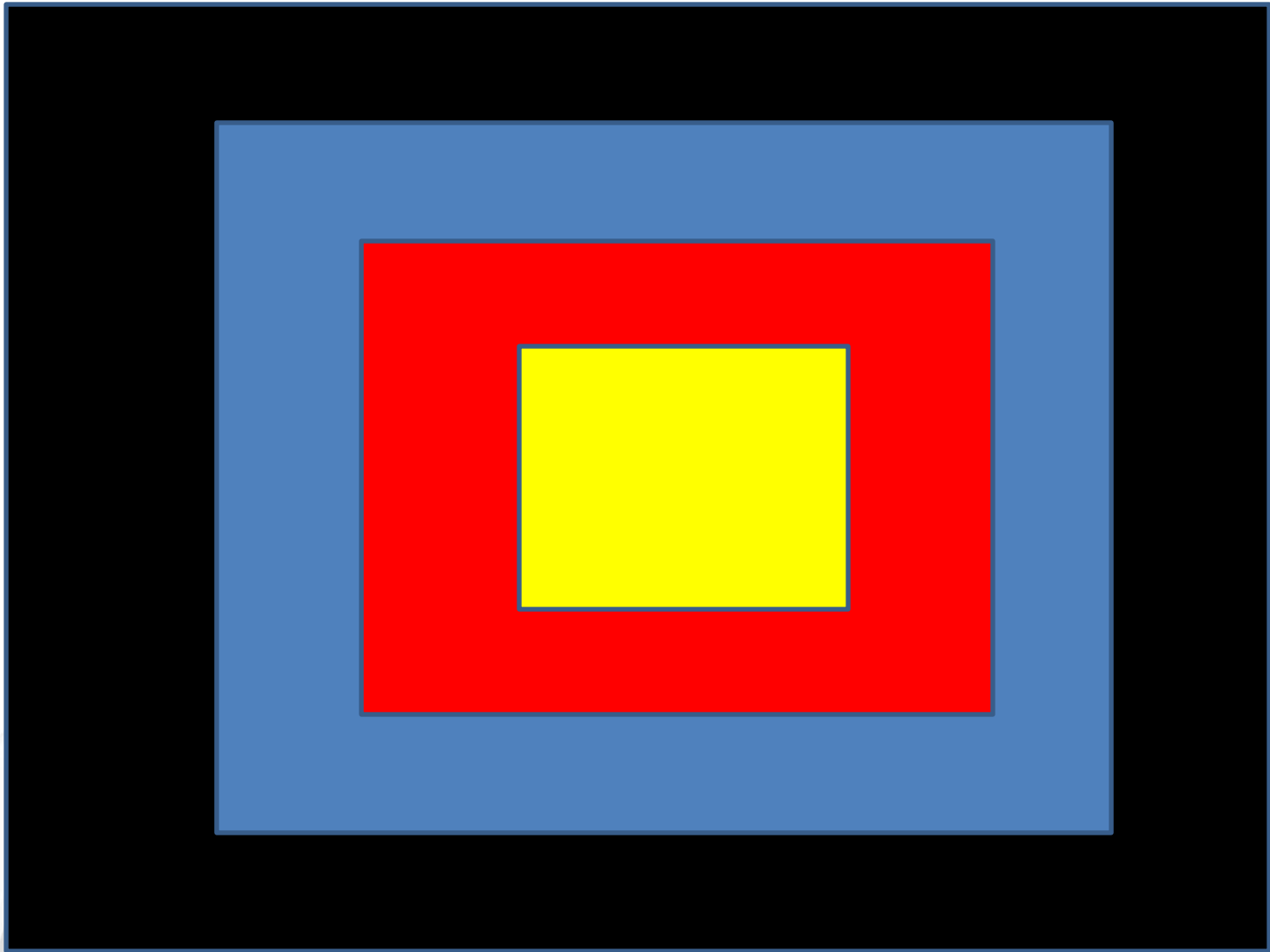


Mobile
supported



Mobile
Enabled

How many colours

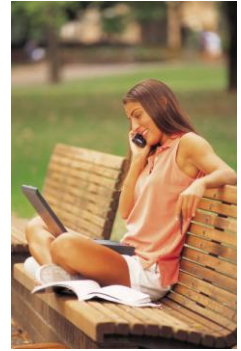




Context



Content

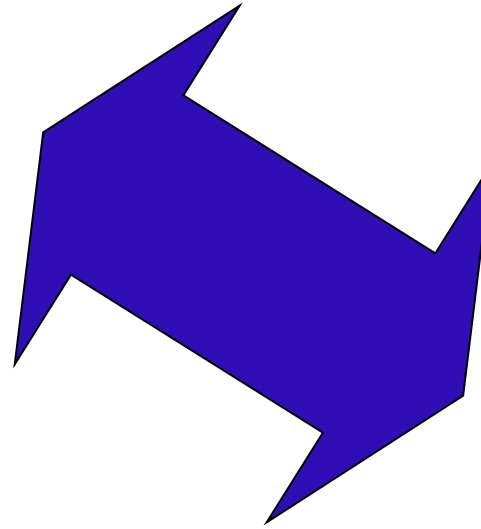


Capability

3 Cs

- **Context:** Infrastructural/technical factors shape and influence participant perceptions of Mobile environments.
- **Content:** National factors emphasise the 'uniqueness' of individual institutions and shape the direction and focus of mobile implementations.
- **Capability:** Individual factors building the competence, confidence and understanding of individuals and determine the successful integration of mobile technologies in institutions.

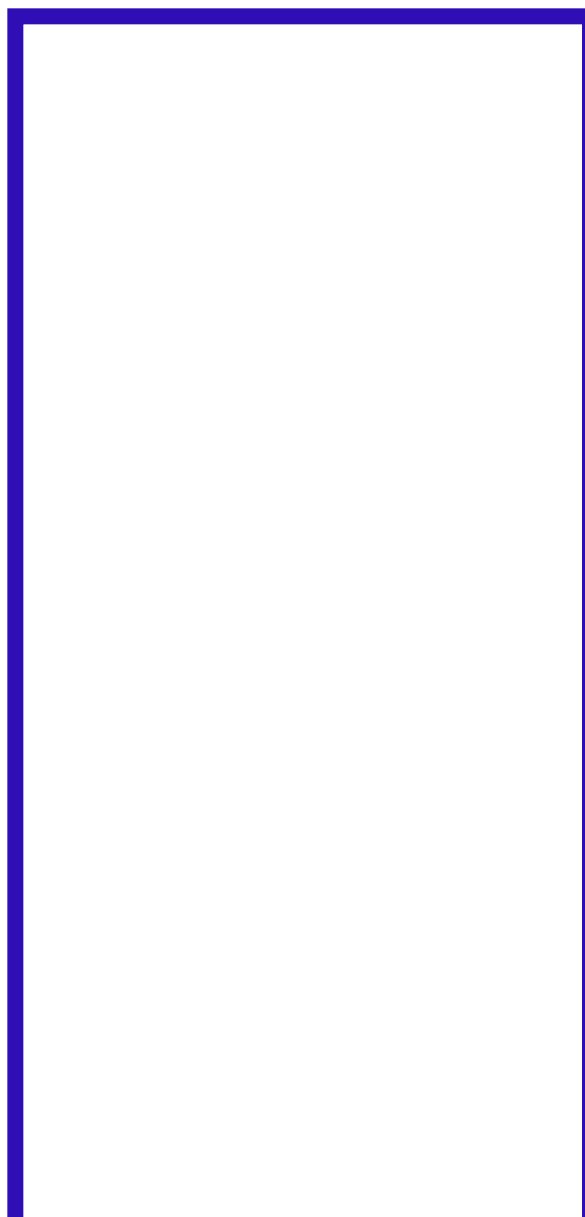
Key-board & Screen



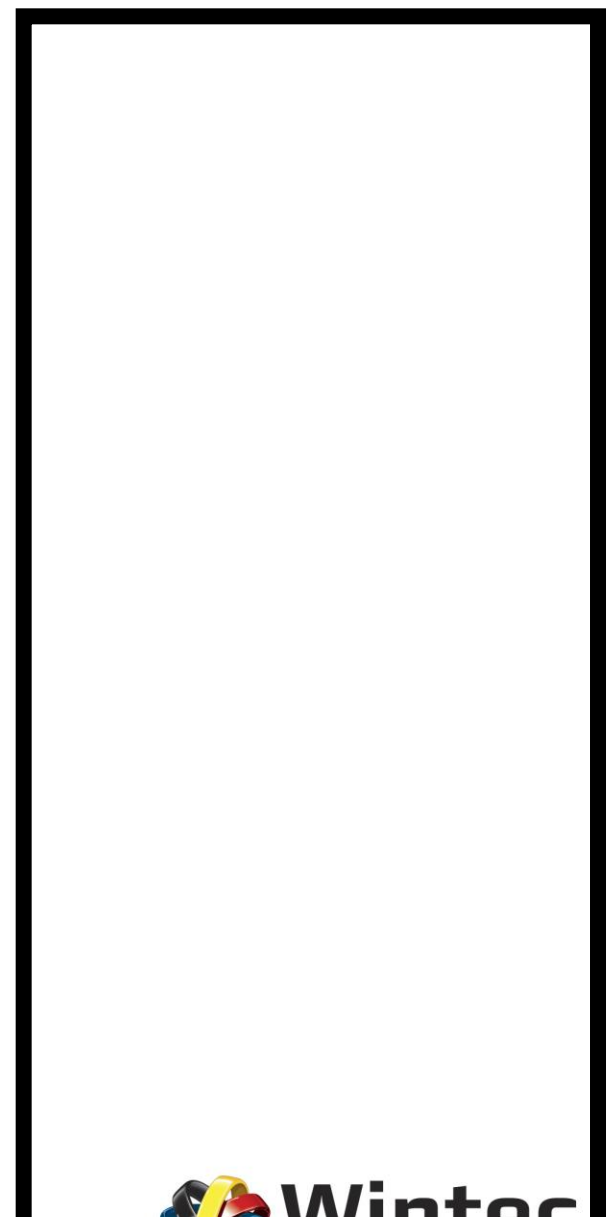
Touch Technologies



Context



Content



 **Wintec**
Capability

3 Es

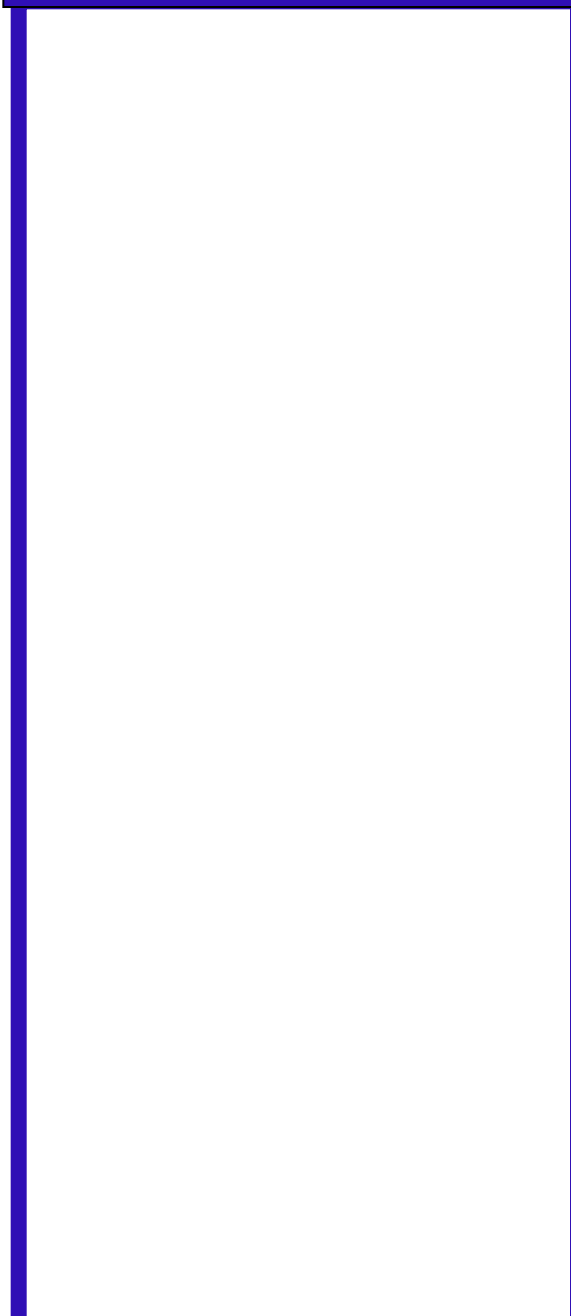
- **Enabled:** Initiatives measured on how they have enabled users to participate in mobile enhanced environments.
- **Engaged:** Initiatives can be measured on how they have initiated and maintained engagement in the mobile communities established.
- **Empowered:** Initiatives can be measured on how they have ensured all participants are capable of participation.



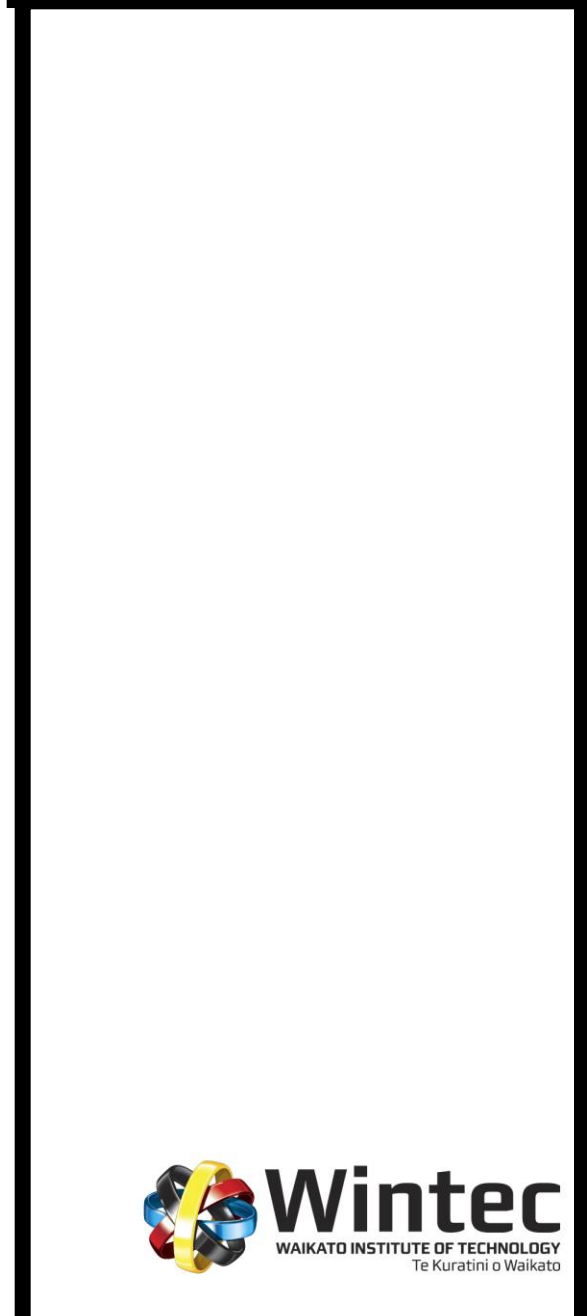
Enable



Engage



Empower



Accomplishment

Assess

Enabled

Connections are reliable and robust

Policies are created to enable the delivery of mobile learning

Purchase of applications and peripheral devices meet institutional guidelines

Context

Assess

Engaged

Learners are actively participate in the events delivered

Materials are indexed, stored to be retrievable for future learning events

Participants have ready access to materials

Content

Assess

Empowered

Participants are competent and confident in using mobile devices

Ongoing academic support available

Ongoing technical support in the use of mobile technologies provided.

Capability

Action

Action

Action

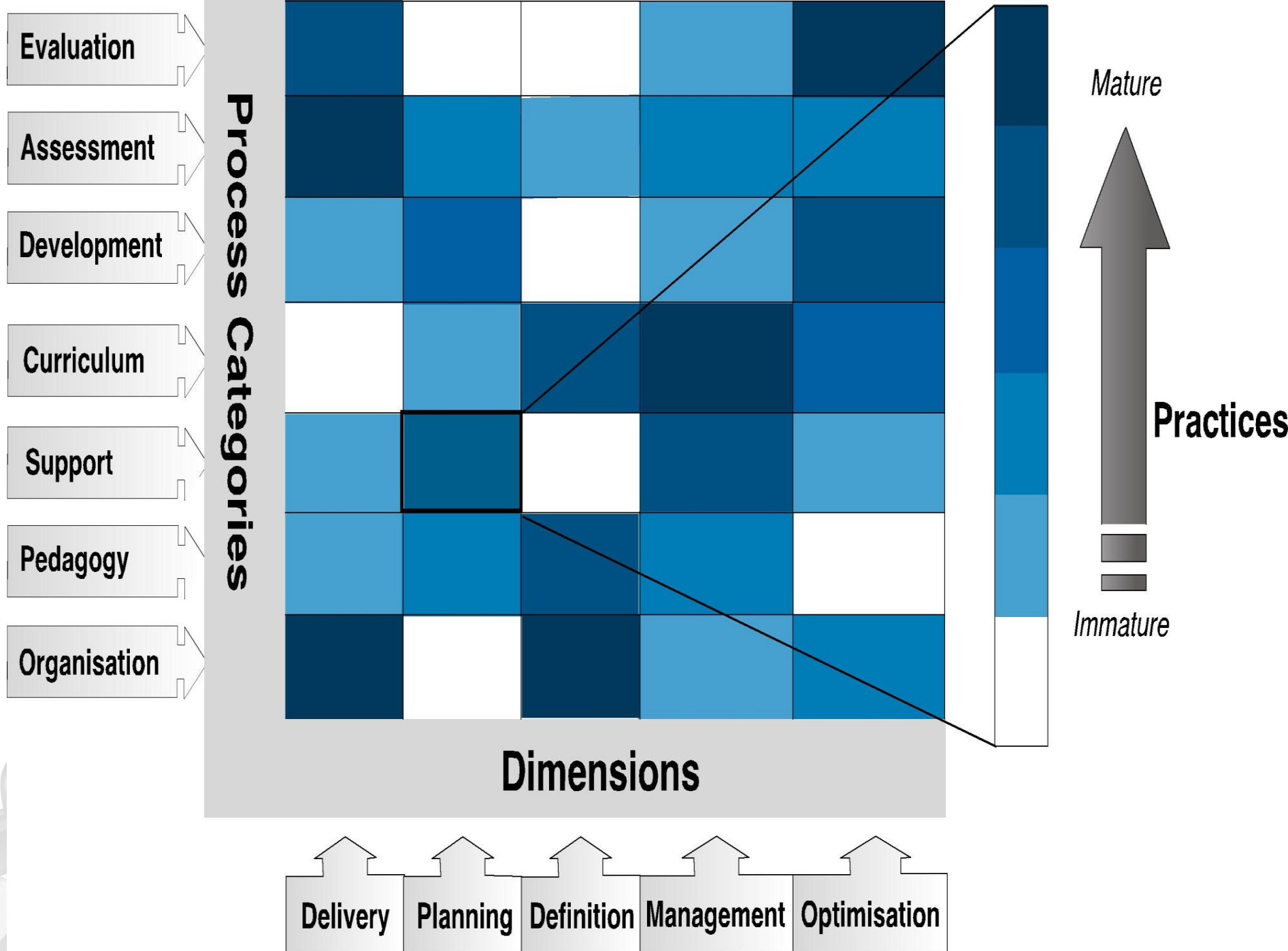
Awareness

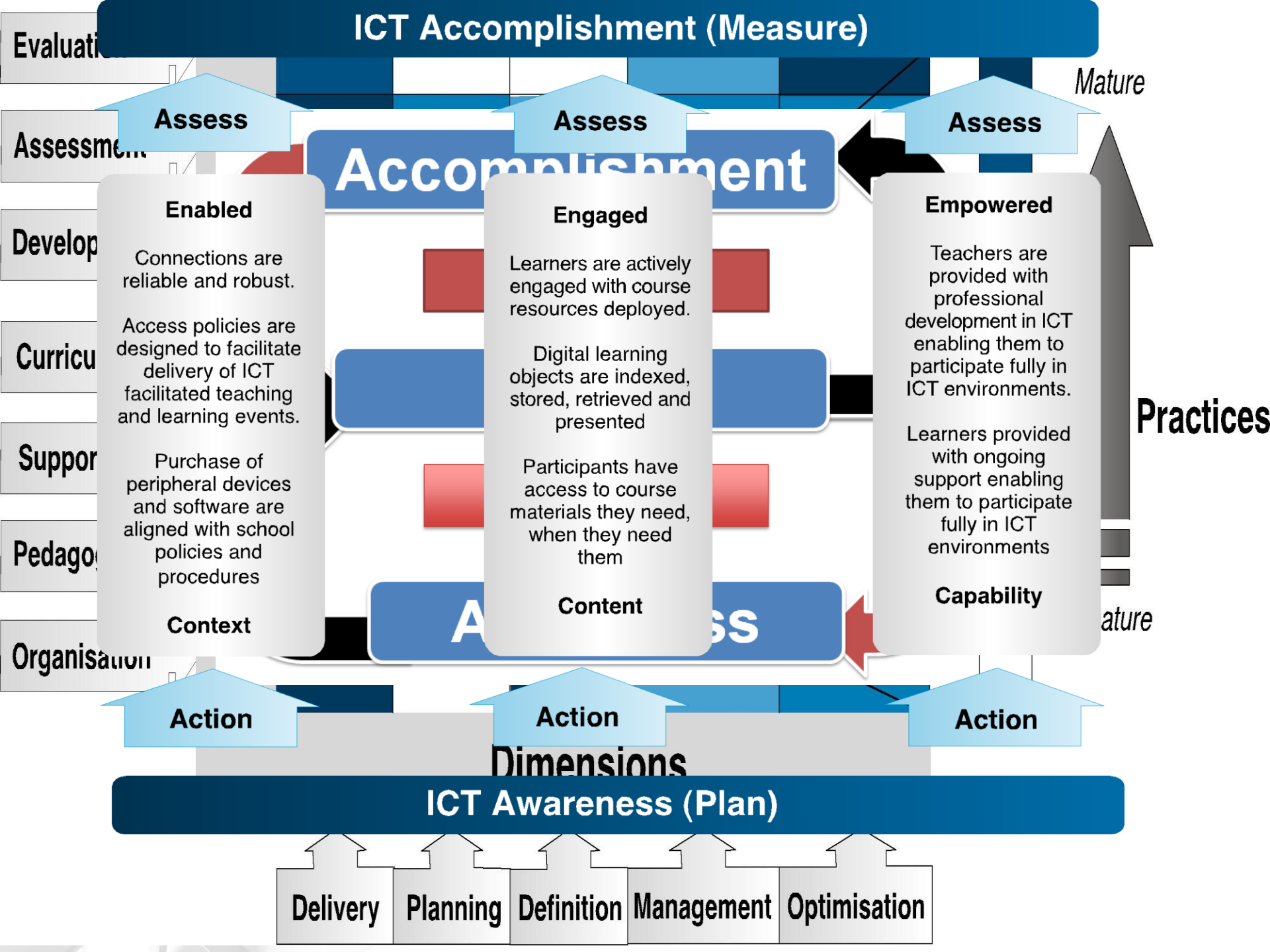
tec

WAIKATO INSTITUTE OF TECHNOLOGY
Te Kura o Waikato

Self-Review Framework

- The frameworks are based on categories, dimensions and practices
 - **Categories:** identify the “processes” that support ICT development
 - **Dimensions:** Dimensions serve to break down the processes into examinable aspects.
 - **Practices:** These serve to measure the institution’s actual practices.





ICT Accomplishment (Measure)

Delivery

Planning

Definition

Management

Optimisation

Assess

Enabled

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Purchase of applications and peripheral devices meet institutional guidelines

Context

Assess

Engaged

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Capability

Action

Action

Action

ICT Awareness (Plan)

Assessment

Evaluation

Curriculum

Pedagogy

Organisation

Support

Development

Key Tips

For educational institutions to iteratively improve their m-learning capability they need to

- 1. **Systematically** plan for improvement
- 2. **Routinely** monitor impact of initiatives
- 3. **Regularly** Obtain
 - the **Right** information
 - From the **Right** people
 - At the **Right** time